

PG Engineering Solutions enters second decade of project management innovation

Operation expands to new facility in Río Piedras, grows to 47 employees

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Ten years ago, in a 100-square-foot office with one employee, Carlos Pesquera began the operations of PG Engineering Solutions (PGES) seeking to leverage the expertise he obtained as “owner” of a variety of massive infrastructure projects while secretary of the Department of Transportation & Public Works of Puerto Rico under Pedro Rosselló’s first and second terms as governor (1993-1999). As Transportation secretary, he is credited as the driving force behind the \$2 billion Tren Urbano (Urban Train), the Super Aqueduct that has resolved metropolitan San Juan’s water-rationing problems, numerous road-construction projects and the construction of the José Miguel Agrelot Coliseum in San Juan.

PGES fills the role of owner’s representative in a project’s development. A project owner is mostly interested in the construction’s final product, where as the owner will occupy the building, and make use of it once it is complete. However, owners are disadvantaged when it comes to dealing with a general contractor and the progress of their project, as construction is typically not part of their daily lives. This creates the need for a skilled construction-management team to look out for the owner’s interests.

“We found an opportunity to provide nontraditional engineering services in the industry,” said Pesquera. “We do not act as architects, design engineers or developers, but instead as project managers. We fill the role our clients would ordinarily fill if they had the internal staff to manage their own projects.”



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—Carlos Pesquera, PGES president

An owner has many responsibilities during the course of a construction project. The design must meet the owner’s needs for both function and aesthetic appeal, bids must be solicited, change orders need to be analyzed and approved, and the budget and primary contractor must be managed.

PGES, acting as the owners’ representative, guides its clients’ every step of the way, from organizing the bidding and recommending a general contractor, all the way through owner move-in. This helps keep the budget in check and provides maximum protection from contractor default and litigation.

PROJECT MANAGEMENT FROM START TO FINISH

“We take our clients through the entire pipeline, from procurement to inspection, and ultimately, the delivery of a project,” Pesquera said.

PGES assists its clients in this process, providing them with skilled management until well after the general contractor has gotten his last check and moved on. The firm’s first two clients were FirstBank P.R. and Hospital Hermanos Meléndez.

PGES began as engineering inspectors of the pediatric unit of the hospital. The company also worked with the previous administration in the development of the oncology unit. The organization did not have experience with project management and PGES was able to effectively assume this role in conjunction with the Infrastructure Finance Authority (AFI for its acronym in Spanish). These types of projects are complicated because they require adherence to building codes specific to healthcare

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facilities. PGES has developed the expertise to administer these types of projects and it is now one of the company’s specialties.

DEVELOPMENT SHARED BY PGES

In the project with FirstBank, PGES was already acting as engineering inspector of the development; as a result of owner nonperformance, FirstBank took possession of the development and placed PGES as owner’s representative for the completion of the project. PGES was able to successfully save the residential development in San Sebastián for the bank and the owner. The project was eventually sold to the Puerto Rico Housing Department for an average of \$105,000 per unit; significantly less than it typically costs the agency to build public housing units. The developer did not profit as much as he had originally hoped, but the project was sold at a gain for the bank and the developer.

PGES is located adjacent to the Río Piedras Tren Urbano (Urban Train) station in a recently renovated building facing the plaza. It is part of Pesquera’s commitment to the redevelopment of the Río Piedras urban hub. Many of the company’s 47 employees and clients reach the office via the train. PGES averages \$4.8 million in annual revenue. The company manages projects of all scales and levels of complexity. It has a client mix of approximately 25% private and 75% government. Their primary private client is the Hospital Menonita system and the PathStone organization.

INNOVATORS IN TECHNOLOGY

PGES emphasizes technology in everything it does; there are in-house developers and information technology (IT) managers that administer the network, the in-house and remote servers, and the website. Clients receive value-added services with the IT resources that PGES provides. The company’s use of state-of-the-art technology allows it to operate efficiently with a minimal number of support staff.

The company is a major contributor to the \$792 million project



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to revitalize public housing made possible by tax credits negotiated through the Federal Housing Administration, Internal Revenue Service and Treasury Department. PGES was selected by the P.R. Housing Administration to handle project oversight. This comprehensive renovation project consists of a complete overhaul of existing structures and restoring them to like-new condition.

An average of \$125,000 per residential-housing unit was invested in this project. From an investment point of view, it costs more to renovate existing units than to build new ones; however, the Department of Housing & Urban Development (HUD) is not allowing the construction of new public housing. The federal agency is seeking to reuse existing building sites as a measure to preserve the environment and promote urban infill projects.

In many cases, HUD is requiring a reduction in the population density of public housing as well. This can be evidenced in such projects as Las Acacias in Old San Juan,

Las Gladiolas in the Hato Rey sector of San Juan and Los Alamos in Guaynabo, where an existing public-housing project is reused, but the population density is significantly lowered. The Housing Administration is required to maintain its current amount of 56,000 public-housing units available. PGES was made responsible for ensuring the quality of construction and containment of cost for these projects. The 33 renovated housing projects comprise 7,132 units.

PGES is committed to giving back to their industry; it frequently provides seminars for the Engineers & Land Surveyors Association (CIAPR for its Spanish acronym) on various topics.

One of the ways in which PGES differentiates itself from its competition is by operating in an agile and efficient manner; thereby providing clients with affordable, quality service. PGES is no stranger to complicated projects. It frequently takes on challenges that are beyond the scope of their customer’s expertise.

MINORITY SMALL BUSINESS ADMINISTRATION CERTIFICATION

PGES is in the process of obtaining certification as a Minority Small Business at the federal level. This is part of an effort to diversify the company’s client base by providing services to federal agencies on the island and the U.S. mainland. However, this is not as simple as it sounds; there seems to be a trend in federal agencies awarding contracts to the same companies.

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PGES is responsible for overseeing the budget, construction timeline, quality and coordination for the completion of the second phase of the PR-66 project, which extends the expressway between Canovanas to Río Grande.

As part of the PR-66 project, PGES has developed numerous software-based product-control programs it has transferred to the Highway Authority for use in future projects. These tailor-made technology transfers are an additional way in which PGES distinguishes its value-proposition.

The Transportation & Public Works Department (DTOP by its Spanish acronym) is modifying all of its project-management systems to adopt the PGES-developed software. The firm’s software-development center is not a revenue generator for the company; instead it is part of the added value that comes with contracting it. “We provide our clients more than what other companies give their clients,” Pesquera said.

The most important component of PGES is its team of professionals. There is a mix of recent graduates and professionals with more than 40 years of experience. “We pair up our young staff with our most experienced professionals to ensure they learn from their experience.” ■